

UNCLASSIFIED when blank - TOP SECRET when attached to Top Secret document - Automatically downgraded to SECRET when filled in form is detached from controlled document.

DOCUMENT DESCRIPTION		REGISTRY
SOURCE		CIA CONTROL NO.
DOC. NO.		DATE DOCUMENT RECEIVED
DOC. DATE	19 Feb 68	LOGGED BY
COPY NO.	9	
NUMBER OF PAGES	2	
NUMBER OF ATTACHMENTS	1	

[illegible]

DOWNGRADED		DESTROYED		DISPATCHED (OUTSIDE CIA)	
TO		BY (Signature)		TO	
BY (Signature)		WITNESSED BY (Signature)		BY (Signature)	
OFFICE	DATE	OFFICE	DATE	OFFICE	DATE

Approved For Release 2004/11/30 : CIA-RDP78B04770A000900010001-2

TOP SECRET[redacted] 25X1
19 February 1968Copy No. 9**MEMORANDUM FOR:** Director, National Photographic Interpretation Center 25X1**SUBJECT:** Request for Approval of [redacted] Photographic and Line-Scan Imagery Experimentation Contract with [redacted] 25X1

1. This memorandum is a request for approval to expend FY-1968 funds for a follow-on to the "P.I. Performance Studies" contract with [redacted] 25X1

2. This contract has been in effect since 1964 and has resulted in the delivery of several technical reports including "The Effects of Stereo Convergence and Obliquity Angles on the Judged Worth of Aerial Photographs", "The Measurement of Photographic Images by Human Operators", and "The Analysis of Missile Sites as a Function of Photographic Ground Resolution". [redacted] has also responded periodically under this contract to special clearance requirements such as those generated from the "D" Program and Project [redacted] 25X1

3. The above missile study is currently being extended to include electronic sites. These analyses were required in order to determine a resolution "break point", i.e., that image quality level which if exceeded, yields no further intelligence information from a photograph of a particular target. This result is then used by reconnaissance systems designers to designate a point of diminishing returns. Since the cost of obtaining increased resolution from an optical system expands geometrically, the determination of critical breakpoints helps avoid expensive over-design of photographic collection systems. This data is one essential portion of the feedback required between the user (NPIC) and the collectors. 25X1

4. It is proposed that two sub-tasks be accomplished under the requested funding:

- a. An extension of the previous photographic resolution studies to include ground, air, and naval order of battle, the next highest priority targets.
- b. A line-scan imagery study: This sub-task will extend an Office of Special Projects study and will help us determine the impact of real-time imagery upon NPIC. Because this imagery will be of

TOP SECRET

GROUP 1
Excluded from automatic
downgrading and
declassification

TOP SECRET

SUBJECT: Request for Approval of [] "Photographic and
Line-Scan Imagery Experimentation" Contract with
[]

25X1

25X1

the line-scan type, numerous problems such as training and equipment design must be anticipated before the transition to this unconventional sensor is made. The present study will focus on human performance requirements in the exploitation of the new system.

5. This program has been fully coordinated with [] of OSP, with EXRAND, and with other appropriate Government agencies. No duplication has been found. No conflict exists between this work and that of [] on our "Imagery Interpretation Research Program". [] is involved in an integrated approach to the overall NPIC exploitation process, whereas [] has for 8 years been responding to more specialized requirements regarding reconnaissance acquisition system design parameters as dictated by NPIC user needs.

25X1

6. It is requested that approval be granted for a contract with [] to conduct the described task at a cost not to exceed [] from FY-1968 funds.

25X1

[]
Chief, Technical Services & Support Group, NPIC

Attachments:
R&D Catalog Form
[] Proposal

APPROVAL:

ARTHUR C. LUNDAHL
Director

National Photographic Interpretation Center

28 FEB 1968

Date

Distribution:

Original & 1 - NPIC/TSSG/SS/LS	Cys. 1 & 2
1 - NPIC/ODir	Cy. 3
1 - NPIC/TSSG	Cy. 4
1 - NPIC/TSSG/SS	Cy. 6
1 - NPIC/TSSG/DED	Cy. 7

NPIC/TSSG/DED/ISB: [] (19 Feb 68)

TOP SECRET

R & D CATALOG FORM		DATE 7 February 1968
1. PROJECT TITLE/CODE NAME Photographic & Line Scan Imagery Experimentation		2. SHORT PROJECT DESCRIPTION Psychophysical experimentation with NPIC and DDI/IAS photo interpreters.
3. CONTRACTOR NAME [REDACTED]		4. LOCATION OF CONTRACTOR [REDACTED]
5. CLASS OF CONTRACTOR Research Organization		6. TYPE OF CONTRACT CPFF
7. FUNDS FY 1967 \$ [REDACTED] FY 1968 \$ [REDACTED] FY 1969 \$ [REDACTED]		9. BUDGET PROJECT NO. NP-F-2-03028
8. REQUISITION NO.		10. EFFECTIVE CONTRACT DATE (Begin - end) May 1968 - April 1969
11. SECURITY CLASS. A.A. - Confidential T. - Unclassified W. - Top Secret		
12. RESPONSIBLE DIRECTORATE/OFFICE/PROJECT OFFICER TELEPHONE EXTENSION DDI/NPIC/TSSG/[REDACTED]		
13. REQUIREMENT/AUTHORITY The human element in imagery interpretation is a vital, yet relatively unexplored variable.		
14. TYPE OF WORK TO BE DONE Applied Research		
15. CATEGORIES OF EFFORT		
MAJOR CATEGORY [REDACTED]	SUB-CATEGORIES Imagery Interpretation	
16. END ITEM OR SERVICES FROM THIS CONTRACT/IMPROVEMENT OVER CURRENT SYSTEM, EQUIPMENT, ETC. Monthly reports, and final report.		
17. SUPPORTING OR RELATED CONTRACTS (Agency & Other)/COORDINATION [REDACTED] is currently under TSSG contract to investigate PI performance and techniques. The work is being done jointly with [REDACTED]. Thorough coordination of this program has been accomplished with DDS&T/OSP and OSI.		
18. DESCRIPTION OF INTELLIGENCE REQUIREMENT AND DETAILED TECHNICAL DESCRIPTION OF PROJECT (Continue on additional page if required) The optimization of imagery interpretation functions at NPIC is the key to adapting the Center to the ever-increasing workload being levied upon it. By experimenting in controlled, but near-operational conditions, psychophysical analysis of human factors problems can be accomplished most accurately. This contract will involve the investigating of resolution requirements for the photographic interpretation of several specific target categories as well as a first study of line scan imagery exploitation human factors.		
19. APPROVED BY AND DATE		
OFFICE	DEPUTY DIRECTOR	DDCI